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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,494	08/22/2003	Tetsutaro Inoue	0020-5168P	8755

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EXAMINER

RESAN, STEVAN A

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/645,494

Applicant(s)

INOUE ET AL.

Examiner

Stevan A. Resan

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8-22-03 &amp; 1-28-04</u> . | 6) <input type="checkbox"/> Other: ____  |

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Aonuma US 4253886.

See Col 8 lines 44-60 and Col 10 lines 27-66 wherein the ferromagnetic powder of the invention is treated with boron compounds and other compounds that reduce corrosion. Corrosion lowers magnetic properties (Col 4 lines 34-44). Ferromagnetic particles Fe-Co-B with an average particle size of 30 nm are disclosed at Col 20 lines 22-23 to form the magnetic layer. Table 1 shows only a 86% reduction in saturation magnetization after 60 C 90% RH for 7 days (equivalent to a rise of 1.16 in SFD). It appears that the magnetic properties would still be within the claim limitation after 83 more days since the oxide coating formed would act as a barrier to further corrosion. Nevertheless, it would have been obvious to one of ordinary skill in the art to treat the powder as taught in order to optimize corrosion resistance in a given binder system.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Matsubaguchi et al DE 19752953. For convenience the examiner will cite the passages in the equivalent US 6,579,592.

Matsubaguchi et al disclose a magnetic recording medium comprising a lower non magnetic layer comprising a non magnetic powder and a binder formed on a flexible support and an upper magnetic layer comprising a ferromagnetic powder and a binder formed on the lower non magnetic layer. The magnetic powder contained in the upper magnetic layer has an average major axis length of 80 nm and the magnetic layer is 30 nm thick (See Reference example 5 Table 6 that uses magnetic powder B).

This example does not disclose the initial SFD value as claimed nor the SFD value after storage under the conditions claimed.

However, the magnetic particles used in this example are  $\text{FeCo}_{28.5}\text{Al}_7\text{Y}_6$  which are close in composition to the magnetic particles used in the present specification examples  $\text{FeCo}_{30}\text{Al}_5\text{Y}_3$ .

Matsubaguchi et al (Col 24 lines 19 and 20) teach that the SFD of the magnetic layer most preferably is from 0.15 to 0.30. Therefore the initial SFD of the example of Matsubaguchi et al is deemed within this range. In addition, since Matsubaguchi et al teach that reduction of chlorine in the magnetic layer reduces corrosion of a head passing over the media (Col 37-38), it appears that SFD would also be reduced.

The claiming of a previously unidentified property that is inherently present does not necessarily make a claim patentable.

It has been held that where claimed and prior art products are identical or substantially identical in structure or in composition, or are produced by identical or substantially identical processes a case of anticipation or a prima facie case of obviousness has been established and the burden of proof is shifted to applicant to show that prior art products do not necessarily or inherently possess the characteristic of a claimed product whether the rejection is based upon "inherency" under 35 USC 102 or on "prima facie obviousness" under 35 USC 103 jointly or alternately. In re Best 562 F2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977); In re Ludke, 58 CCPA 1159, 441 F.2d at 212-13, 169 USPQ 563 (1971); In re Brown, 59 CCPA 1036, 459 F.2d 531, 173 USPQ 685 (1972).

" When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not". In re Spada. 911 F2d 705, 709, 15 USPQ 2d 1655 (Fed. Cir. 1990).

Nevertheless it would have been obvious to one of ordinary skill in the art to treat the magnetic particles to protect them from corrosion and the consequent loss of magnetic properties such as an increase in SFD.

Claims 2 and 4 are considered nominal process of use of the article and do not further limit the article.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubaguchi et al DE 19752953 in view of any one of Masafumi et al JP 05-081649, US 4076890 or US 4369076.

Matsubaguchi et al DE 19752953 has been discussed above.

The three cited references are provided for their teachings of the treatment of magnetic particles to improve their corrosion resistance and consequently to reduce the deterioration of magnetic properties due to aging.

Masafumi et al teaches the use of a borate to treat the magnetic metal particles (See abstract).

Miyahara et al teaches the use of borates including triethyl borate (Col 4 line 41-Example 3). The examiner notes that applicants have also used triethyl borate example 1 of the present specification.

Yamada et al teaches the use of silane coupling agents including aminopropyltrimethoxysilane (Col 5 line 25). Yamada teaches that the silane coupling agent may be put directly into a magnetic coating solution (Col 5 lines 54-56). The examiner notes that applicants have also used aminopropyltrimethoxysilane in example 2 of the present specification.

Therefore it would have been obvious to one of ordinary skill in the art to either pretreat magnetic particles or add to the magnetic coating solution a anticorrosive agent.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suzuki et al 5876833 is cited as the US equivalent to EP 0 742 550.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stevan A. Resan whose telephone number is 571-272-1513. The examiner can normally be reached on Tues-Thurs from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached at 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Stevan A. Resan', with a stylized flourish at the end.

**STEVAN A. RESAN**  
**PRIMARY EXAMINER**